

Notice of Allowability

Application No.

10/691,305

Examiner

Brenda A Lamb

Applicant(s)

TAM ET AL.

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview summary of 5/27/2004.
2. ☒ The allowed claim(s) is/are 44-55 renumbered as claims 1-12.
3. ☒ The drawings filed on 22 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/05/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/27/2004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Brenda A Lamb
Primary Examiner
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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Millikin on 5/27/2004. The application has been amended as follows:

Cancel non-elected claims 43 and 56.

The examiner has amended specification to update continuation data set forth in transmittal data sheet of 10/22/03: Before first line of page 1 of specification insert –
This application is a divisional application of U.S. Application Serial No. 09/941,281 filed August 28,2001, now U.S. Patent 6,669,993. --

The following is an examiner's statement of reasons for allowance: The prior art fails to teach or suggest an applicator device for applying finish liquid to one or more high speed running yarns having the following elements:

a) a top portion and a bottom portion mated to the top portion, each of the top portion and the bottom portion having a front surface, a rear surface, a top surface, a bottom surface and two side surfaces; the bottom portion having entry openings in its front surface for each individual yarn and exit openings in its rear surface for each individual yarn; d) the yarn entry openings being of dimensions to substantial block an air boundary layer; e) the bottom portion having one or more interior walls dividing bottom portion into two or more consecutive chambers; f) each of the interior walls in

the bottom portion having constricted yarn passages, individual for each yarn, connecting the preceding and succeeding chambers; g) at least one of the chambers in the bottom portion communicating with external source of finish liquid; h) at least one of the chambers in the bottom portion communicating with an external drain; i) the top portion having one or more interior walls dividing top portion into consecutive chambers corresponding in number/location to mating chambers in the bottom portion; at least one of the chambers in the top portion in communication with an external source of finish liquid', and k) means to hold the bottom surface of the top portion and top surface of the bottom portion together in mated position.

The prior art fails to teach or suggest an applicator device for applying finish liquid to one or more high speed running yarns comprising: a) a top portion and a sealed and mated bottom portion; b) each of the top portion and the bottom portion having a front surface, a rear surface, a top surface, a bottom surface and two side surfaces; c) the top portion having grooved channels in its bottom surface, individual for each yarn, extending from the front surface of the top portion to a position intermediate of the distance to the rear surface of the top portion; d) the bottom portion having grooved channels in its top surface, individual for each yarn, extending from the front surface of the bottom portion to a position intermediate of the distance to the rear surface of the bottom portion; e) the grooved channels in the top surface of the bottom portion being aligned with the grooved channels in the mating bottom surface of the top portion; f) yarn entry openings formed by the intersection of the aligned grooved channels in the top and bottom portions with their respective front surfaces; g) air


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boundary layer diversion ducts in the top portion communicating between each of the grooved channels and the top surface of the top portion; h) air boundary layer diversion ducts in the bottom portion communicating between each of the grooved channels and the bottom surface of the top portion; i) each of the air boundary layer diversion ducts in the top portion and in the bottom portion intersecting its corresponding grooved channel in the vicinity of the respective front surfaces of the top and bottom portions forming an acute angle of about 10 degrees to about 50 degrees with the corresponding grooved channel, the acute angles opening outward rearward; j) a first restriction in the dimensions of each grooved channel, the first restriction placed rearward of, and in the proximity of the intersection of the air boundary layer diversion duct with the grooved channel; k) one or more liquid supply ducts communicating between each of the grooved channels and an external pressurized source of finish liquid, the liquid supply ducts placed rearward of the first restriction in the dimensions of each grooved channel; l) the terminus of each liquid supply duct at its intersection with its corresponding grooved channel being constricted so as to form a jet nozzle; m) the terminus of each liquid supply duct at its intersection with its corresponding grooved channel forming second and subsequent restrictions in the grooved channel; n) the bottom portion having rearward of the most rearward liquid supply duct, one or more internal walls defining two or more chambers; o) the chambers communicating with an external drain; p) an exit opening for each yarn in the rear surface of the bottom portion; and q) means to hold the bottom surface of the top portion and the top surface of the bottom portion together in mated position.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A Lamb whose telephone number is (571)272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brenda A Lamb
Primary Examiner
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